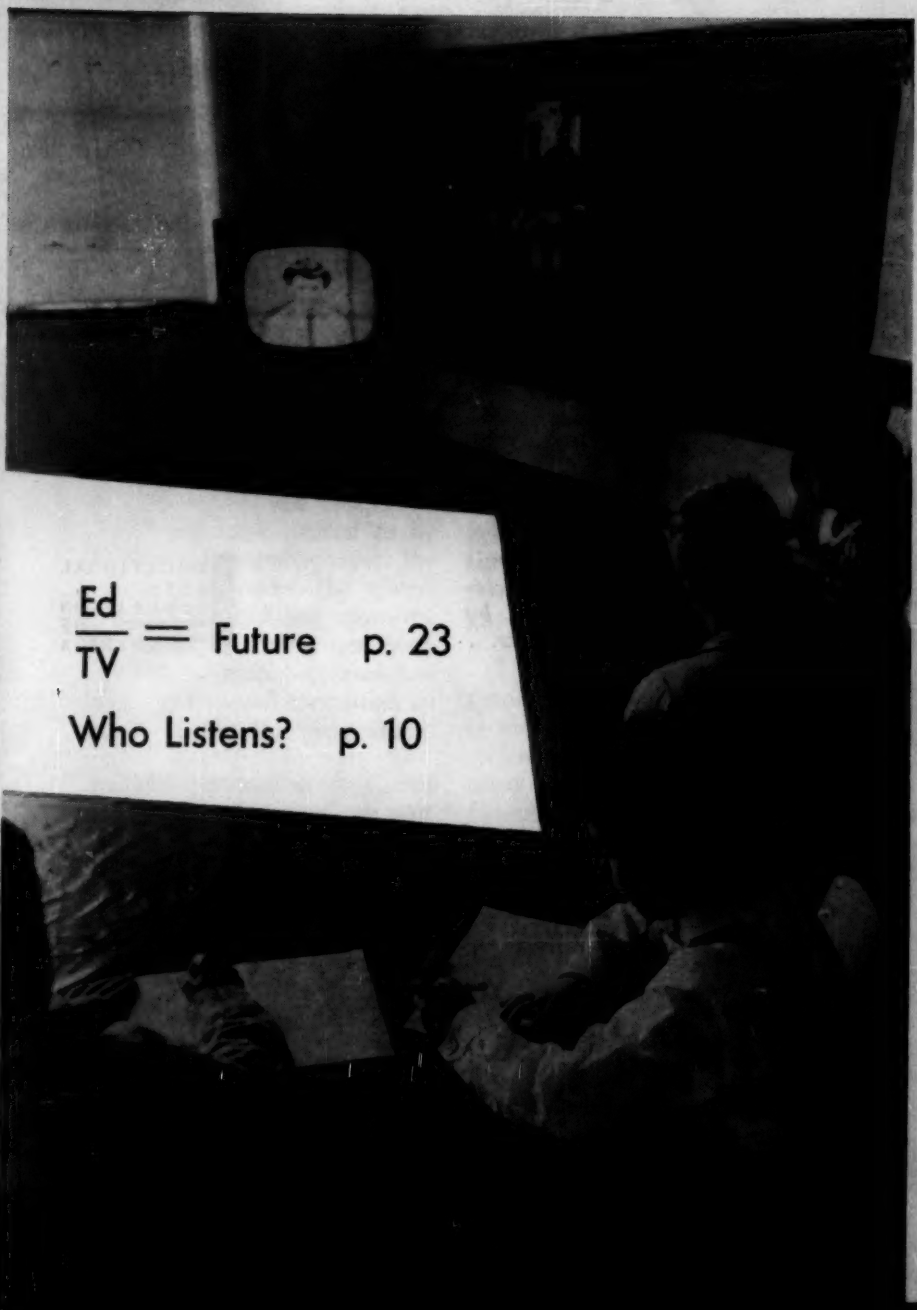
NAEB JOURNAL

DECEMBER 1959



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Announcement

Beginning with the next issue, the *NAEB Journal* will be issued on a bi-monthly basis, the year round. This will avoid skipping the four summer months, which has been done in the past. Subscriptions will be $4 per year (plus $1 additional for overseas postage); single copies 75c each (plus amount required for overseas postage).

On the cover: Children in St. Louis take second-grade spelling by television. Story page 23. Photo by George Harris from Black Star. .

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Broadcasting Under Fire

The "quiz show" episode, culminating in the Van Doren affair, has led once more to serious questioning of the broadcast media. Van Doren was no doubt guilty of a gross breach of ethics and apparently also of perjury. As a result, he was dismissed in November from his assistant professorship at Columbia University and from his post as consultant to NBC. But the real scoundrels, many feel, are those who have assumed responsibility for radio and television programs and have proved to be unfaithful to their public trust: the stations, the networks, the advertising agencies, and the sponsors. And, as more and more testimony is taken, the evidence increases that there was widespread corruption by those responsible for programing.

Is it any wonder, therefore, that members of the Congress are now talking about the need for corrective legislation, coupled with a grant of more power to the Federal Communications Commission to regulate programs? There is also an indication that the Federal Trade Commission will take steps to halt the growing volume of false and misleading advertising which is invading the American home at all hours of the day and night.

One often wonders whether the American people have ever taken broadcasting seriously. That it could do far more to benefit its audience than it has done might probably never occur to many of them. Both radio and television have developed like Topsy, devoid of any soundly conceived plan which would take into account their potentialities and the real needs each could and should serve. That television in many homes is used primarily as a means of relaxation for the parents and a baby-sitter for their children should not come as a surprise to anyone.

The industry, from the very beginning, has resented any Government regulation. Yet its efforts at self-regulation and its much-publicized codes have not proved sufficiently effective. Furthermore, the Government itself has seemed reluctant to interfere with broadcasting. Consequently, each act of Congress to regulate broadcasting (the Radio Act of 1927 and the Communications Act of 1934, for example) was passed, not in accordance with any long-range plan or blueprint, but to solve immediate and critical problems which had arisen.

This writer is convinced that little, if any, new legislation is required at this time. What is needed, he feels, is a Federal Communications Commission whose members will courageously use the powers they presently possess.

What has happened to the recommendations contained in the FCC's excellent report of March 7, 1946, entitled, *Public Service Responsibility of Broadcast Licensees*? Why is no attempt being made to compare program performance with the promises which led to the grant of the original license? Why are broadcast licenses renewed year after year when the record shows failure of the programs of many licensees to meet reasonable standards of public interest? Perhaps FCC members should refresh their memories by re-reading the above-mentioned report, especially "Part II. Commission Jurisdiction with Respect to Program Service," pages 9-12.

The courts have held, and the Congress and the FCC have been fully aware for more than thirty years, that the powers of the FCC are not limited to the engineering and technical aspects of regulation. However, if reasonable doubt exists that the FCC has the power to take past programing into account in action on license renewal applications, the Congress should not only spell out that right but also the obligation to exercise it fearlessly. A careful study of program performance is the essential next step if further, and even more flagrant, abuses are to be avoided.

Are the present members of the FCC aware of their obligation to consider program performance before renewing licenses? Do they lack the courage to discharge their duties to the public? If so, should they not be removed and outstanding, dedicated public servants appointed to replace them?

—TRACY F. TYLER, *Editor*

Projects and Products

a column by Philip Lewis

Director, Bureau of Instruction Materials,
Board of Education, Chicago

AIRBORNE TELEVISION INSTRUCTION

On October 15, 1959, a group of nationally prominent educators from the Midwest announced an airborne instructional television experiment to help lift quality and efficiency of education in a six-state region involving 5,000,000 students and 13,000 schools and colleges.

In the fall of 1960 classroom courses on videotape, recorded by outstanding teachers recruited from across the nation, will be televised from a DC-7 aircraft some 20,000 feet over the north-central part of Indiana. Estimated coverage from the "flying TV station" will be a circle 300-400 miles in diameter, reaching from Milwaukee and Detroit to Cincinnati and Louisville—embracing parts of Illinois, Indiana, Kentucky, Michigan, Ohio, and Wisconsin (Figure 1).

Production centers will supply videotapes for transmission from ground-based facilities at Purdue University in Lafayette, Indiana, to the circling four-engine aircraft some distance away. These will be retelecast to schools and colleges throughout the region which choose to participate in the project.

The experiment will be conducted by the Midwest Council on Airborne Television Instruction in conjunction with the Purdue Research Foundation at Purdue University, where the central offices of the project are located. It is estimated that the total cost of the experiment for the tooling-up year and for the first year of broadcasting will be almost $7,000,000. The initial experiment will be financed with private gifts and grants from philanthropic foundations, industrial corporations and others.

Assisting in the technical aspects of the project are CBS Laboratories, General Dynamics Corporation, and Westinghouse Electric Corporation. This latter organization pioneered the "Stratovision" concept — the technique of rebroadcasting TV signals from a

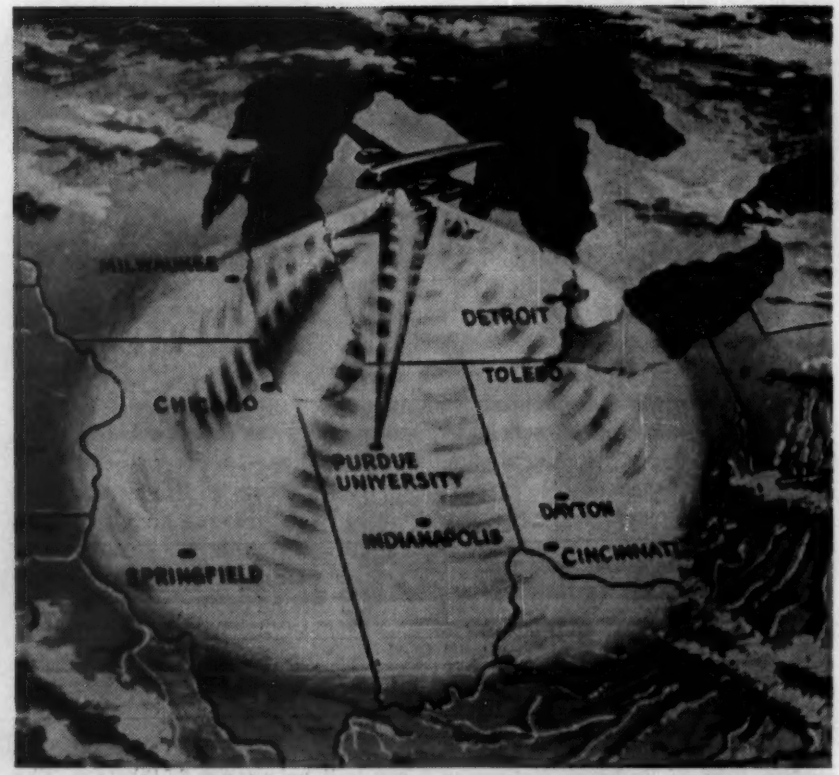

Figure 1

It is estimated that within a radius of 125 miles of the broadcast aircraft, more than 90 per cent of all locations will have good reception—and within 200 miles, more than 80 per cent.

high-flying airplane in a series of test telecasts from 1945 to 1948. Experimental TV station W10XWB, Channel 6 in Baltimore, was established to beam TV signals to a specially equipped B-29 bomber which had been converted into a "television station" (Figure 2). Test telecasts over many months, with the Stratovision plane flying circles at 25.000 feet and 25 miles north of Pittsburgh, provided signals that were received in nine states.

In a June, 1948, demonstration, the Stratovision plane retelecast the Republican National Convention in Philadelphia. This enabled viewers as far west as Michigan to see a program available only on the east coast TV network. The coaxial cable had not yet spanned the Alleghenies.

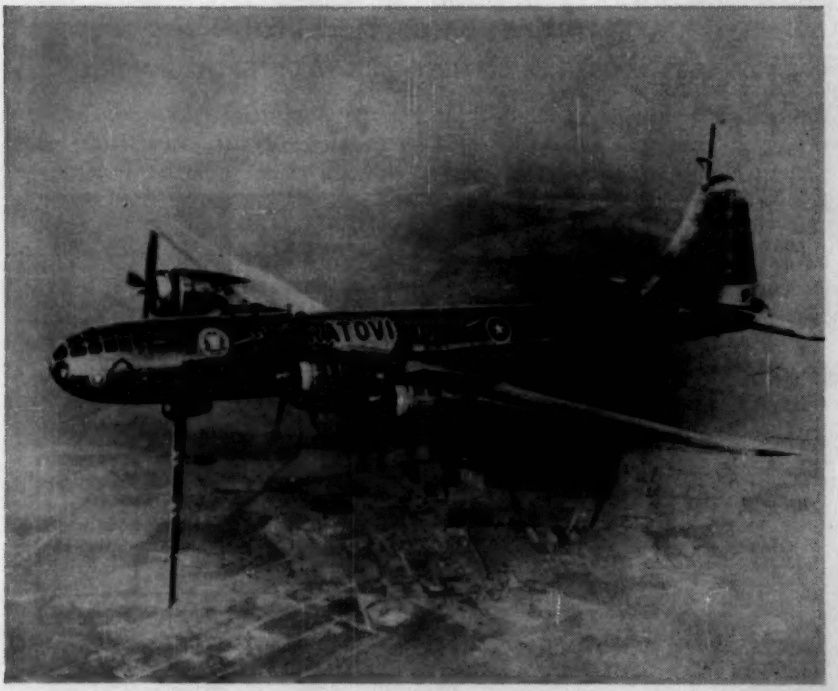

Figure 2

In the original Stratovision experiments from 1945 to 1948, a modified B-29 bomber was used. This system was able to supply satisfactory transmission to TV sets as far as 225 miles in all directions.

Application for an experimental license to conduct the Airborne Television Instruction Project will be filed soon with the Federal Communications Commission by the Purdue Research Foundation. The experiment will begin with two conventional "wide-band" UHF transmitters aboard the aircraft so that two different programs may be televised at once. Ultimately, the number of simultaneous telecasts might be raised to six to offer a far greater variety of courses to schools and colleges.

An unusual feature of the experiment will be the testing of "narrow-band" telecasting on two special channels which will carry the same programs as the conventional UHF channels (Figure 3). This "narrow-band" method was

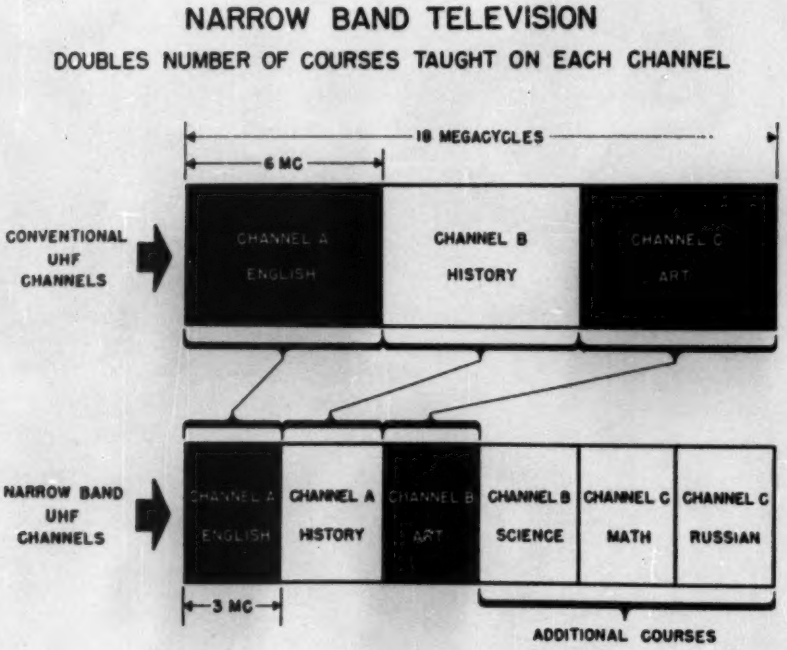

Figure 3

The "narrow band" system utilizes scanning standards which differ from those used for conventional broadcast television.

developed by CBS Laboratories with the cooperation of Minnesota Mining and Manufacturing Company, and has the potential of doubling the number of courses which could be carried over regular channels.

The "wide-band" transmissions may be received by standard classroom or home television receivers equipped or adapted to receive UHF programs. Specially designed receivers, however, will be needed to receive the "narrow-band" programs. These will be supplied by the project to about a dozen test schools, but it is expected that a few hundred schools in the first year of the experiment will equip their classrooms for the conventional UHF telecasts under the voluntary program.

Dr. Samuel M. Brownell, former United States Commissioner of Education, and chairman of the new Midwest Council on Airborne Instruction, said the organization was formed "because of the concern of educators in this region—as in the rest of the country—over the challenge which faces American education today.

"It is the challenge to provide sufficient quantity of educational opportunities for a fast-growing population along with improved quality of instruction—and to provide both quantity and quality within feasible costs.

"And it has decided to conduct a major pilot experiment with airborne telecasting as one method of reaching even greater numbers of students than is now possible by means of ground-based transmitters.

"Far from imposing uniformity and rigidity upon local curricula, we believe airborne television can help to provide greater richness and variety than now exists and can further unleash creativity and initiative of local teachers.

"One advantage of instructional television is that it is entirely voluntary on the part of the user and therefore makes available the advantage of improved materials and methods without centralized control."

Who Listens?

Author analyzes educational radio audience

Despite the phenomenal growth of television, educational radio in this country is steadily growing—is reaching substantial minorities of thinking adults who are not served by any other broadcasting medium. General realization of the existence of such discriminating listeners, together with the recent renewed interest in FM. holds great promise for the further progress of educational radio.

The changing function of radio in our society makes mandatory continual research to provide educational broadcasters with knowledge concerning the numbers and nature of their audiences. Indicative of educational radio research is the study by Ken Kager (May, 1959, *NAEB Journal*) of the audience of Seattle's KUOW (FM). He found that the influence of an educational station is not necessarily limited to the immediate audience, but that its generally higher-status listeners were better informed, stronger in their opinions, and more likely to communicate opinions to others than a sub-sample of non-listeners.

Here I will compare some of the findings of a radio audience study with those of various educational television audience surveys. Two groups were compared in the present study — the educational radio listening group (forty-one respondents who indicated that they had listened to educational stations WSUI or KSUI (FM) in Iowa City, Iowa, at least two hours in a seven-day period) and the control group (forty-one members selected as a random sampling of the population of Iowa City). Interviews were conducted personally, having been arranged for by a previous telephone call.

FINDINGS

A common conclusion among the various educational television audience studies is that the viewer of

educational television is more "cultured" than his non-viewer counterpart. Some of the findings concerning the radio audience also indicate that the listener to educational radio has definite "culture tendencies." Thus, more of the educational radio listeners, to a significant extent, reported being members of organizations, having read a book in the last six months, attending lectures or forums, and attending a play during the previous academic year. Schramm (in his study of the ETV audience in the San Francisco Bay Area) and Adams (in his exploration of the audience of WUNC-TV, Chapel Hill) agreed with the radio study in that educational television viewers read more books. Evans (in a study of the KUHT audience, Houston) noted that ETV viewers attend more lectures or plays and are more likely to belong to organizations than non-viewers.

Yet, if one were to expect the educational radio listeners to be more "culturally oriented" than the rest of the population, differences between the two groups studied should have occurred in the following areas which differentiated the educational television viewer (but not the educational radio listener): attending concerts, purchasing classical phonograph records, and reading newspapers and magazines.

Perhaps the educational radio audience could best be described as being more active than the general population. Thus, significantly more of the educational radio group reported attending movies, owning typewriters, and they listened more to radio generally and educational station WSUI specifically than was true of the population sample. While 90 per cent of the homes of both groups had television receivers, the educational radio listeners watched significantly less television on the average day than the general population—a finding symptomatic of that group's wider range of activities and interests (one of which

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Instructor in the department of speech at Kansas State University. He has participated in the operation of educational FM stations KUMD-FM, Duluth; KSUI, Iowa City; and KSDB, Manhattan. He is an FM-DX experimenter, concerned with the reception of FM radio signals at great distances.

presumably would be the viewing of educational television, were such a channel operating in the Iowa City area).

When the amount of present WSUI-KSUI listening was compared with past listening, more persons in both groups reported listening less to the educational stations than formerly. Reasons for reduced WSUI-KSUI listening for the educational radio group fell generally in the category of "insufficient time," while the normal distribution sample expressed preferences for other stations or media.

Some 31.7 per cent of the educational radio group had FM radios in their homes, while 19.5 per cent of the general population had FM. This difference was not significant. There were also no significant differences between the two groups concerning the existence in the respondents' homes of dictionaries, encyclopedias, phonographs, or tape recorders (four respondents in each group having a tape recorder in the home).

The educational radio listener cannot be differentiated from the normal population on the basis of age, income, occupation, sex, or education. These findings were generally borne out for the educational television viewer. However, Keiger and Sokol (in their study of Boston ETV) and Schramm found the educational television viewer to be more highly educated than the general television adherent.

On the basis of the findings of the educational radio audience study, therefore, we may conclude that educational radio listeners are definitely more active and somewhat more "culturally oriented" than the general population. Although certain of the traits that differentiate the educational radio listener differ markedly from those which differentiate the educational television viewer, many of the specific, and most of the general tendencies are strikingly similar for the audiences of educational radio and educational television.

TV Offers a Close Look

Techniques aid immediacy in television teaching

By Arthur Weld

Associate Professor of television at Michigan State University. His ten years of experience with educational (and four years of experience with commercial) television has included many hours of direct television teaching.

Television has two very powerful capabilities that can be used by the instructor, neither of which has anything to do with its ability to spread him thin before a larger number of students than he could otherwise teach at one time. Both of them can be expressed in the same way — giving the student a close look — but they are not the same thing at all. In the first place, of course, television can give him a close look physically. In the second, it can bring the teacher close to him; and that is another matter entirely.

The physical close look implies production techniques particularly suited to demonstrations. These have been the object of a good deal of writing and discussion, and obviously they include such basic matters as getting the right shot at the right time, using a set sequence (and a set area) for demonstrations, etcetera, etcetera.

But the other kind of close look has not had the same kind of attention; and that is surprising— because it is nothing less than the "immediacy" we so frequently honor, if only in a name-dropping sort of way. Webster says immediacy is "directness; direct presence . . . [that which is] not secondary or remote." Good. Let me add that, television communication being what it is, and the student's experience with television being what *it* is, television's immediacy must involve at least two related qualities — informality and intimacy. It must represent personal contact

between one individual — the teacher—and another individual—the student. It must mean saying *not* "You are there," but "I'm with you."

With the best will in the world, too many of us treat the viewing student as a kibitzer—though we know he is not, and though he may actually be the only one to whom we are directing our teaching. We forget what we have said so often ourselves, that we are not talking to a mass. but to an individual. We had better not think of him as even mildly multiple, because to himself he certainly is not.

But while our assessment of this relationship may be expected to affect our teaching automatically, and no doubt does to a degree, nearly all of us can profit from the use of a number of specific and quite simple techniques.

Among other things, using television "intimately" means genuine eye-contact. In speaking to the student, a television teacher must not merely look *at* the lens (let alone vaguely toward it), but *through* it. Looking *at* the lens generally results on the screen in the sort of glassy stare that should be reserved for vacation snapshots. It is far more effective to look *through* the lens *at* somebody. (It helps me to imagine I actually see someone in there, and especially a specific individual with whom I can empathize — even though it may be a student who graduated long ago.) Further, of course, really personal contact means a low-key, conversational tone of voice, as opposed to the kind of projection appropriate to a classroom. It also means (perhaps this most of all) the exclusion of a "feedback" student group from the studio. Passionately though some of us want the feedback, there is simply no debating the fact that those few students in front of us (but out there somewhere among the cameras and lights, usually) are forcing us to cheat the majority.

There are simple production techniques the director can use to help, of course—as, for example, more frequent use of close-ups of the teacher than other kinds of television generally feel desirable. But such things are adjuncts. A close-up of someone obviously talking to someone who isn't *me* doesn't do very much to establish personal contact with me. It only emphasizes my feeling of being an eavesdropper. The real job is the teacher's. Deliberate use of "you" and "we" words is a very great help, as is every possible suggestion that the teacher and student actually are together. "I'm glad to see you this morning" will strike even young students as impossibly coy; but a casual "I'll see you tomorrow" will not. The editorial (or hospital nurse's) "we" is too fulsome for all but the *very* young. But "as you and I both know" and "Our reactions—yours and mine—are probably different from other people's" make very good television sense. Some of the time we spend on thinking up illustrative

anecdotes might well be diverted to thinking up phrases like these.

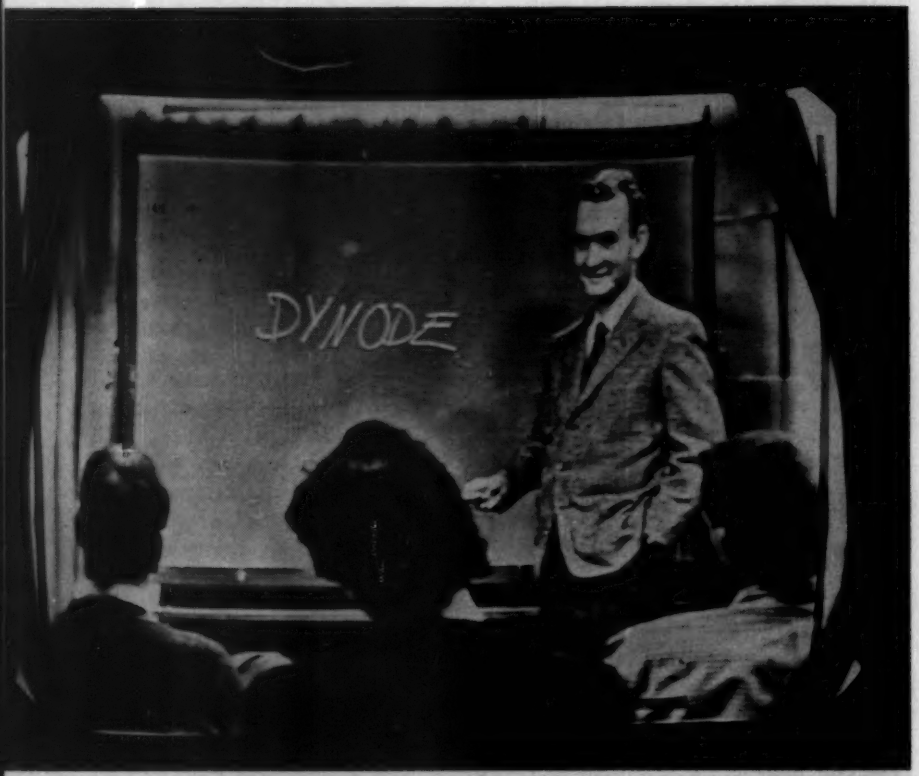
Then the matter of physical presentation needs re-thinking too. A lapboard or its equivalent is often (I think usually) better than a blackboard. The pictures show what I mean. Though written with a pencil (soft, naturally) on a pad, the word in the close-up is as large on the screen as its twin in the long shot, and if anything more readable. But it is also far more personal. The student does not feel he is peering at teacher from a back row; he is beside her as she shows something to *him*. It must be admitted that a shot like the one in the picture calls for movement of a camera to a position nearly behind the teacher. But small artist's tables can be had with tops that can be propped in a slanting position; these are almost as good as lapboards, and perhaps won't frighten the inexperienced director so much. Easels, table or floor, are too formal to my way of thinking, even if handled by the teacher. (Do you have a flip-stand in your living room?) Limbo easels with cards flipped by the floor manager contribute not at all to a feeling of direct contact. In this connection they are not even so good as blackboards.

So much for intimacy. As has already appeared, informality is its very close relative. Not merely is a lapboard better than an easel, and not merely should the teacher do his own drawing or lettering entirely (or at the very least mostly) with the student looking on, but the whole business of "being visual" should be approached with circumspection. Be visual where it is desirable of course, but not grimly visual. Props, charts, graphs and so on should never be used for their own sake, any more than they are in the classroom — most certainly not just because "This is television." What should we care if the TV pros call our lessons "good radio shows"? Since we are not after all putting on a show, the sneer is (in their eyes) something of a compliment.

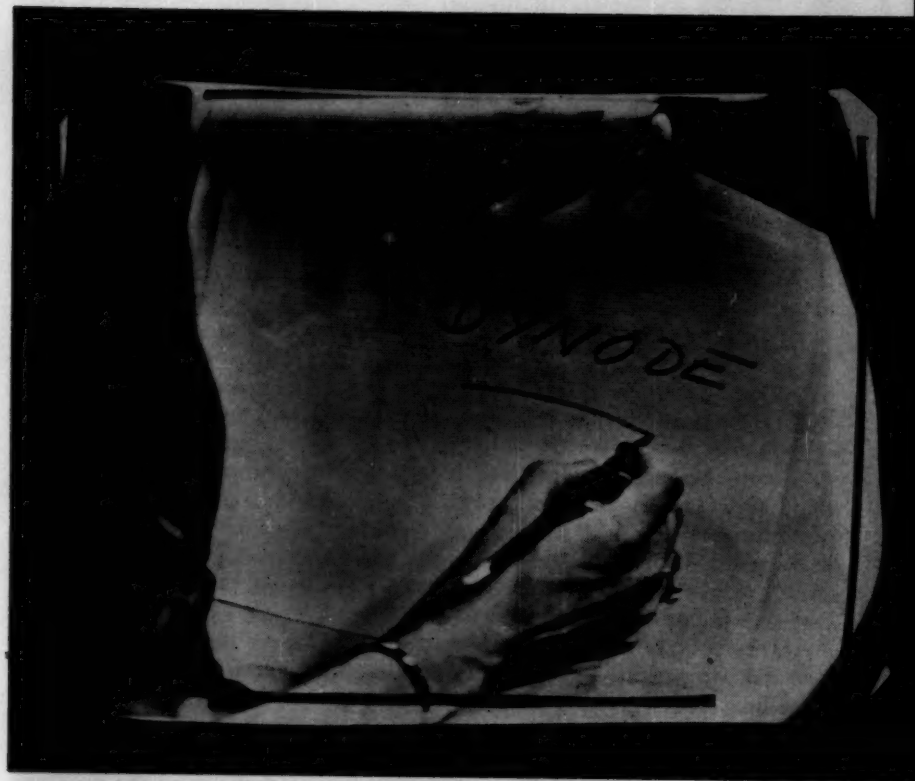
In fact, as many of us have found out the hard way, overproduction in general should be avoided, both for philosophical reasons (as carrying a flavor of entertainment and "showmanship") and for practical reasons (as either requiring too much rehearsal or alternatively asking for technical fluffs).

Apart from avoiding documentary-film-style slickness, the best way for the teacher to achieve informality is to be comfortable — I mean in the plain and physical sense. Sitting in a chair or even on a table or desk helps relax the presentation and works very nicely for most lessons. And of course movement to or from the chair helps keep things informal, as well as adding variety, provided both teacher and studio crew can handle the moves in a natural manner.

There remains one other device to be suggested here, and that is for the teacher to act as his own director. At least in many kinds of courses, and at least above the



Everything
is as usual—
except you are there.



Same information,
more immediacy
and more impact!

elementary level, it is perfectly possible for the teacher himself to call the shots, direct camera maneuvers and so on, at no other cost than the possible loss of a little time, and with some considerable advantages. The question of whether students should be allowed to see the "bones" can fortunately be answered affirmatively with the above provisos and with one caution: If the viewing students are to be made privy to the mechanics at all, they should be frankly so.

In cases, for example, where an extreme close-up is wanted which will take a few seconds to line up, it is generally better to put the camera concerned on the line so that students can see the process of getting the picture framed and in focus. This has the "showmanship" values of emphasizing the fact that the camera is the student's eyes, and of some mild suspense. But more practically, it gives him something better to look at than a picture of the teacher's suspense.

(If the director is handling the shots — Need it be said? — the close-up in question should be set up ahead of time and ready the instant it is wanted.) Since in most cases there will be only a line monitor in the studio (and not a separate monitor for each camera) such a practice also permits the teacher to talk the cameraman into the shot if necessary. ("Camera two, give us a very close shot of this gear train . . . . Take two . . . . A little closer, if you can. Make it fill the whole screen . . . Left a little bit . . . All right, now, this is the crown gear on the left.")

Clearly, the teacher who is his own director needs to know something about the capabilities of the equipment, but not very much; and at least he doesn't have to operate it. And learning what a camera can do is a good deal easier than, for example, sweating out the intricacies of some of the film projectors all teachers have at some time suffered over. Clearly also, even the teacher who is working with a director may sometimes choose to take over direction, either for an occasional session or for parts of a session, in cases where subject matter can appropriately be so handled. Aside from the virtues of convenience and precision, I think there is considerable value in the informality of the procedure. Once more: We are engaged in presenting a lesson, not a "show." Air directors will of course be horrified at the deliberate acceptance of out-of-focus shots, cameras and microphones in the picture, and camera instructions on the program audio. Let them be.

It is a truism to observe that blindly addressing a mass audience on these pages is a good deal like talking to a camera. Yet, speaking of feedback, I suspect I can feel already one kind of response—the objection that I have assumed the viewing student to be always sitting on a sofa in his living room. What about a schoolroom full of students, with one or more electronic surrogates standing about

like Big Brothers? Informality I may possibly have sold — but intimacy? I hope so. In the first place, *especially* when he is a member of a viewing group, the student is not "there"; the teacher is in the room with him. And in the second, to say it again, his much larger experience with entertainment television inevitably colors his relationship to the classroom screen. He is not silly enough (usually) to expect entertainment from it; but he cannot help expecting, probably only semiconsciously, the same kind of rapport he always feels with other television screens. Where, on the lower elementary levels, he may make little or no distinction between entertainment and instruction, he is simply an extreme case. Presumably it is no accident that the best television teaching *styles* seem usually to be seen in elementary teachers.

Radio-Television
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annotated by Eleanor Blum

Journalism Librarian, University of Illinois

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The author investigates the effectiveness of a number of promotional techniques in securing an audience.

NAEB Research Fact Sheets

Series I: The Effectiveness of Television as a Teaching Tool

79. The Milwaukee Experiment in Instructional Television: The Evaluation Report for the 1958-1959 School Year

By Robert R. Suchy and Paul C. Baumann.
Milwaukee Public Schools, September, 1959. 58 pages.

This is a report on the second year of an experiment in the Milwaukee schools. The first year report was reviewed in the March, 1959, *Journal* as Fact Sheet No. 61 of Ser. I.

Personnel involved in the experiment during the year 1958-59 consisted of a director and assistant director, plus four studio teachers, thirty-seven classroom teachers, three clerical assistants, an artist, a photographer, and two delivery boys.

Subjects in which TV was used were almost the same as the first year: (1) biology and history at the senior high level; (2) general science at the junior high level (social studies was dropped this year); and (3) an integrated program of science, health, and safety at the elementary level.

In the junior and senior high schools, pupils met in large classes three days a week for direct TV instruction and class participation. The other two days of the week pupils met in classes numbering about thirty. In elementary schools, the basic structure of the self-contained classroom was maintained, but six of the classroom teachers in each school combined their classes for thirty minutes a day for the TV instruction.

Planning sessions and workshops were conducted during the spring and summer of 1958. Teacher guides were prepared and distributed, and studio teachers began planning the telecast lessons during the week preceding the opening of school in September, 1958.

Over 400 lessons were telecast during the school year over WMVS-TV. In the second year of telecasting, the four studio teachers made great use of varied resources. Fifty guests appeared; hundreds of artifacts, models, and other items were shown; film clips

from over 180 commercial films illustrated important ideas; over 40 different subjects were filmed by the staff photographer; 2,200 slides were used; and 1,900 pictures, diagrams, graphs, murals, dioramas, and word lists drawn by the project artist were used.

EVALUATION PLAN

1. An intelligence test was to be administered to both the experimental and comparison groups.

2. A form of the achievement test and the critical thinking test was to be given to each group as a pre-test.

3. At the end of the school year a different form of the achievement test and the critical thinking test was to be administered to each group.

4. It was felt that if the results of the intelligence tests and the pre-tests for each group in each subject were similar, the final tests could be used to compare the two groups.

SUMMARY

1. As in the first year, pupils in both the experimental and comparison groups exceeded normal expectations of achievement and ability to think critically when compared to national norms.

2. Both groups were taught by experienced, capable teachers. Teachers of the comparison groups had more teaching experience than teachers of the experimental groups.

3. For the second year, achievement of the United States history experimental groups was higher than that of the comparison groups. Significant differences in favor of the experimental groups in achievement were found in biology and in elementary science, health, and safety. There was no significant difference in achievement between the experimental and comparison groups in general science.

4. No significant difference was found between the experimental and comparison groups in United States history, biology, or general science — as based on the Iowa Tests of Educational Development.

5. There seemed to be no appreciable difference in achievement or in ability to think critically between comparable segments, such as fast learners or slow learners, of the two groups.

6. Pupils in the TV sections had a wider range of experience in their classes than pupils in regular classes.

7. At the elementary level, 95.8 per cent of the principals involved and the teachers using TV said that TV has a role to play in education in Milwaukee schools. Only 25 per cent of the teachers anonymously expressed the desire to continue in the experimental method of teaching.

8. Of high school teachers using TV, 56.2 per cent said that pupil-teacher relationships were adequate.

9. At the secondary level, all of the principals involved and teachers using TV expressed the opinion that TV has a role to play in education in Milwaukee schools. A large majority (87.5%) of the teachers anonymously expressed a desire to continue this experimental method of teaching.

NAEB Research Fact Sheets

Series I: The Effectiveness of Television as a Teaching Tool

80. The Norfolk City Experiment in Instructional Television: The Evaluation Report for the 1958-1959 School Year

By Grace Nichols Johnson and Frances Hardy. Norfolk City School Board, August, 1959. 25 pages.

This covers the second year of an experiment in Norfolk's classrooms. Lessons have been presented over a commercial station, WVEC-TV, daily for two and a half hours a day. Five elementary schools, two junior high, and three senior high schools participated in the year 1958-1959. This was an increase of only one elementary school over the previous year. Sixteen other schools in the city, as well as many schools in outlying districts, viewed the programs, however.

Six TV teachers devoted full time to presenting the lessons. Three other teachers were released from regular duties one day a week to teach the arts. Directors of the station were responsible for the technical production of all lessons, with an audio engineer, electrical engineer, and one cameraman spending part time on the program. One secretary worked full time with the project director and the studio teachers. A high school student spent two hours a day as an artist.

Enrollment was somewhat lower than expected because the schools were late opening and the junior and senior high schools did not open at all in the fall. Numbers enrolled were: 5th-grade general science, 560; 6th-grade general science, 533; elementary Spanish and the arts program, 1,093; 8th-grade American history, 555; 9th-grade science, 344; and 10th-grade geometry, 196.

The ETV experiment in the elementary schools involved about 250

pupils in grades five and six. During the TV classes, about 125 pupils assembled in the lunchroom and were seated around tables arranged in a U shape. There was one TV set for each 20 pupils. Two teachers led the group—or in some cases, one teacher and one aide. The responsibilities of those in charge were similar to those of any classroom teacher except that they had larger classes to handle; they had TV as the main medium of instruction for thirty minutes each period; and there were always two people in charge present.

Junior and senior high school schedules had not been reorganized for TV teaching. Previously empty building space was utilized during telecast time. Teachers averaged about 100 students each in a large group, and taught three additional classes.

Commercial WVEC-TV contracted to permit use of its facilities during the entire three-year experiment. Daily telecasts two and a half hours in duration were permitted for a fee of $25,000 this year.

All were to learn as much about telecasting as possible in case Norfolk obtains a studio of its own. Teachers and the project director learned to operate cameras. Each teacher was scheduled to operate the camera for one program and to floor manage for another. This was felt important so the teacher would appreciate more fully the problems of the director and the cameraman.

WTAR-TV made kinescopes at cost of some lessons — not for re-use, but for the teacher's self-criticism and evaluation.

Teachers in the Norfolk project have interested industry in ETV. One such company has planned to aid ETV with such things as visuals, scholarships, consultants for workshops, and films.

During a summer workshop, the on-camera teachers met with the receiving teachers who were in charge of the large classes. Together they revised and improved the curriculum that had been used the previous year. The TV teachers were employed for the eleventh month, during which time they worked out the lesson plans in detail, gathered visuals, did research, contacted resource people, made out guide sheets and pupil key sheets, finished the details of the curriculum guide books planned by the workshop groups, and learned to manipulate the cameras.

Fourteen people from Norfolk attended the ETV workshop at Chapel Hill. (See the review, this issue.)

EVALUATION

1. The tests show a relatively small difference between the achievement of the TV pupils and the regular classroom pupils. Children can learn just as well by means of TV; its greatest value does not seem to be in *greater* achievement by pupils taught through its use.

2. In the fifth grade, science was chosen as a favorite subject by more pupils in TV schools than in non-TV schools. The choice

among Negro children was significantly in favor of science when presented by TV. Tenth-grade geometry was a favorite more often when not received by TV.

3. Parent reaction to TV—white schools: Out of 350 questionnaires sent to parents of 5th-grade pupils who were receiving TV instruction, 79% or 277 were returned. Of these, 46% liked TV instruction for their children a great deal, 38% liked it a little, and 16% not at all; 59% would choose TV again next year, 21% would not, and 20% were undecided.

4. Parent reaction to TV—Negro school: Of the 70 questionnaires sent to parents of 5th-grade pupils in the one Negro school where science is taught by TV, 84% were returned. Of these, 83% said they liked ETV for their children, 14% liked it a little, and 3% not at all; 90% would choose TV again next year, 3% would not, and 7% were undecided.

5. Teacher-principal reactions—strengths: TV courses were better organized and more carefully planned. Studio teachers were able to produce difficult and expensive experiments not within the scope of the classroom teacher. TV proved to be a means of in-service training for teachers. Children were making more use of the library. There was a noticeable improvement in attendance and punctuality — and no problem in discipline. Teaching of Spanish in the elementary schools would not have been possible without TV.

6. Teacher-principal reactions—weaknesses: Frequent turnover of good TV personnel has made it difficult to stabilize the experiment; however, none was lost because of the TV program—but in nearly all cases the change was a promotion. There was lack of publicity to acquaint educators and the general public with ETV. Lack of integration of subjects taught by TV with those taught in the classroom is apparent . . . no chance to ask questions during telecast . . . technical difficulties . . . difficulty of grading each student in the large group.

CONCLUSION

Teaching by television to in-school classes is very definitely a team effort. The physical production of a televised lesson involves the efforts of many specialized people. Therefore, one arrives at the inescapable conclusion that the greatest good in televised teaching probably comes from this teamwork of teachers.

In this experiment, the classroom teachers met bi-weekly with the studio teachers to evaluate the previous lessons and to plan the lessons to follow. In this way, the entire curriculum (as well as the content of each lesson) was under continuous scrutiny. This teamwork overflows into the classroom in the form of key sheets for the pupils, guide sheets and suggested activities for the classroom receiving teacher, and feedbacks from the receiving teacher concerning

the value of the lesson—with suggestions for improvement. Hence each classroom and studio teacher has the continuous benefit of the experience of many teachers involved in the same area of teaching.

NAEB Research Fact Sheets

Series VII: Administrative and Faculty Reactions to Educational Television and Radio

14. More Adventures in Television

By Gertrude F. McCance. From the Manitoba School Journal, *September, 1959. Vol. XXI, No. 1. pp. 12-16.*

The subtitle of this article reads: A report of the second experiment in the use of television in the schools of Manitoba, broadcast by the Manitoba Department of Education and the Canadian Broadcasting Corporation in February and March, 1959. According to the article, this second experiment showed that Manitoba teachers are ready and willing to accept TV as a teaching aid. In their evaluations, they expressed a preference for the enrichment type program, and for a series of programs on a subject, rather than a single telecast.

Teachers and pupils reacted more enthusiastically to this second experiment than to the first. Dramatization was the most popular form of presentation. Teachers suggested twenty-minute telecasts, with ten-minute follow-up, rather than thirty-minute telecasts. The article stresses the fact that school productions should be professional in quality—and that the age group receiving these programs is the most critical TV audience.

The programs were presented from CBWT, Winnipeg, and carried simultaneously by CBX-TV, Brandon. Viewers numbered 23,465 — an increase of more than 5,000 over the first experiment. Viewing groups ranged from 6 to 200 students. In most cases, programs were viewed by single or

combined classes in a regular classroom. Greater benefit and livelier interest resulted when single classes viewed the programs in their own rooms. The least enthusiastic response came from schools where pupils watched in larger numbers.

Series in the experiment were English (two programs), social studies (three programs), and mathematics (one program).

CONCLUSIONS

1. Programs must be of professional quality.

2. The teacher-narrator is essential, and the studio class is a distraction.

3. Dramatization where it can be used is the most effective technique.

4. TV need not be a passive means of instruction as far as pupils are concerned. Good broadcasts stimulate them to do much more than soak up predigested material. Comments from teachers and pupils show evidence of active learning. Preserving this attitude must be a prime objective of every program.

5. Short programs with opportunity for immediate follow-up are most useful to teachers.

6. TV cannot replace the teacher, but it can provide enriching and supplementary material.

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The Metropolitan Board of Freeholders during a meeting televised over KETC, St. Louis. Photo by Richard Atwell.

$\frac{Ed}{TV}$ = Future

Education over television equals the future

How many times during these cool fall evenings have you settled down with your family at the end of a long day . . . and the last plaintive little voice has asked for a drink of water for the last time, the last patter of little feet going to you-know-w h e r e has subsided for the last time, and you and your husband or your wife are enjoying that blessed, wonderful moment or two that comes to all of us at the end of the day with nothing much to do. And so, you sit there and you prop your feet up comfortably upon a hassock and you watch some tired old movie on television drag on and on and on and you prop your eyes open and you watch that tired old movie to its weary and sordid conclusion even though you know exactly how it comes out because you saw the same thing five years ago at the drive-in. Sure you do, you watch television . . . all of you. And you watch the commercial and sometimes you go buy the product.

That is the first reason why—even though I am professionally devoted to educational television—

By **George L. Arms**

Taken from an address before the Educational Press Association of America, St. Louis, June, 1959. Mr. A r m s has b e e n operations manager of KETC (TV), St. Louis, for the last four years. He is a pioneer in the ETV field, having been among the starters of KUHT, Houston, in 1953. (KUHT was the first ETV station in the country.)

I am not going to criticize commercial television. The second reason is because it is a business.

The people in commercial TV are in the business of selling people's attention to other people who will underwrite the cost of a program in exchange for the right to sell their product. This is the way the American system of economy operates these days and it is not fair to criticize the people who have invested risk capital in it because they do not violate their first tenet which is to attract the largest possible audience all the time. They are forever condemned to the mass appetite for the majority of commercial TV programs.

As a matter of fact we should pay a certain amount of respect to the masters of commercial television at both the local and national levels for those programs they have done above and beyond the popular taste. The music, the political conventions, the news coverage, the wonderful Edward R. Murrow things . . . most of those are done at the expense of the profit margin and sometimes at the expense of a good deal of criticism. You may remember the last time they pre-empted the commercial programs to telecast directly from the United Nations Assembly. They got a lot of criticism from viewers who said they would rather have watched whatever western had been on and had been cancelled at that time. So let us acknowledge that there is only a degree of leadership that can be exerted by the masters of commercial television, in terms of raising the standards of public taste. Whether they are exercising that degree of leadership may be a moot point, may be open to serious challenge, but there can never be more than a minority of time made available to things other than entertainment, because entertainment is what makes the financial merry-go-round operate.

The public obviously *wants* entertainment. The public obviously *needs* education. How can this be accomplished by the stations set aside for educational, noncommercial use? Stations that have no sponsors . . . no commercials . . . and no money?

COLLEGE LEVEL ETV

There are three aspects of education that I think educational television is uniquely designed to serve.

First is the crisis at the college level—the fact that by 1964 our colleges, operating as at present, will only be able to accept 50 per cent of the eligible youngsters who want to go to college. To solve this problem, I would suggest a judicious use of educational TV for freshman and sophomore required courses.

There is pretty much a pattern of required courses at most all American institutions of higher learning. All youngsters have to take freshman math, freshman science of a kind, freshman history, English, and a couple of other basic courses . . . to an astonishing number of sections. I would allow all

eligible college entrants to matriculate at the college of choice. Then I would allow them to watch the required lectures on television, presented by the best professors available, and approved by the colleges and universities of the area.

Where would they watch? Through the magic of the funny-looking black box with the glass front, they could watch almost anywhere—wherever there was a black box. There would be some on campus, there would be some in the libraries, there would be some in the fraternity houses, and in the dormitories. Certainly there would be some at home. They could watch in a bar if they wanted to.

That isn't as odd as it sounds. We had a biology course on for college credit in Houston, Texas, at 7:30 in the morning, and one young man who lived out in town found that the only place on his street that had a TV set was a local pub. He would go down there at 7:30 a.m., prop himself up at the bar, persuade the bartender to turn on the set, and he would take his college biology course by TV. He finally dropped the course, however. He said he had no objection to taking the course by TV, but he couldn't stand drinking beer at 7:30 in the morning.

These college freshmen of 1964, having matriculated at a college, will go to the college once or twice a week for such additional material as that particular institution deems desirable — whether in the form of exams, term papers, assignments, or just plain, good, old-fashioned counseling. All of this could be done on an informal and planned basis.

All of these students will be rigidly graded. Those who pass through the fine mesh of this grading system can, in the junior year, take up residence on the campus. There on campus they will meet with trained faculty members whose time (freed from the drudgery of freshman instruction) will be available on the junior and senior level for what is, after all, the heart and soul of education: the interchange of ideas between the teacher and the relatively small group of students.

Mind you, I am not trying to sell this as the great salvation . . . as something better than anything. All I am trying to say is that it will work. We know it will work, because the research says so. It is drastically necessary that it work because we are already far beyond the time when we can make adequate arrangements for freshman and sophomore education.

If we are to preserve the American heritage of the *right* to higher education, we must make prompt and expeditious use of this 20th century tool on the college level.

ETV BELOW COLLEGE LEVEL

On the elementary and high school levels, a fantastic number of experiments are going on—with closed circuits, with open circuits, with UHF, with VHF—aimed not

only at in-school instruction but at out-school instruction, nighttime supplementary instruction, enrichment, and all the other kinds of words that have semantic involvements I don't have time to explore here.

In the St. Louis metropolitan area for the past three years, more than 100,000 youngsters each week have watched an average of two KETC programs in class. This is, I strongly suspect, the largest number of weekly students, and certainly it has been going on longer than any other place in the country. Let me qualify that remark only by saying that these are not programs of entertainment. They are programs which are produced on TV because the teachers asked to have them done.

The programs on KETC are chosen by teachers' committees. The programs are investigated exhaustively in terms of the curriculum being used in the various schools, and they are used to the extent of 3,000 classrooms a week in the schools of St. Louis and St. Louis County.

I put it to you that when educational TV can be that important to a school system, we have made at least one short step toward demonstrating the kind of help this tool of the 20th century can render to the problems of the 20th century.

DEMOCRACY ON THE LOCAL LEVEL

So far I have talked about formal education. Now a word about the second aspect of education which I think educational TV is uniquely able to serve.

As an example, in Houston, we had a school board and, like all school boards, this one was composed of public-spirited citizens who had the time and the energy to give a great deal to a job. They were seven people who were fairly irascible in their opinions; seven people whose grasp of parliamentary procedure was, to say the most, rudimentary; and seven people who had a tendency to proliferate their discussions to the extent that they would spend a great deal of time arguing about the size of a window shade at a building for which they had not yet let the contract.

We televised the meetings of this board over the ETV station.

Now we did not bring the school board into the TV studio and make a show of it. No, indeed.

We took the TV equipment to the school board. We stayed away from them and, after the first night or two, they ignored the TV apparatus and the fact that they were on television.

Now you may well say, "What is important about people who do not have a perfect grasp of parliamentary procedure, who waste time and argue with each other, etc.?"

This was a democratic organism in action. These people were spending $34,000,000 a year of the public's money, and they were presiding at the determination of policy

of what is one of the most significant activities going on in the United States of America—*the education of our kids.*

We found out that more than 100,000 people in the city of Houston watched the school board on television, regularly. School board meetings in Houston have been on the air continuously for five years. More people in Houston know more about their school system than in any other city in the country. They *know* what their elected representatives are *doing.* And that is the point in putting the school board on the air.

You know, if our democracy breaks down, it won't be at the national level. In fact, lately I've become almost convinced that you can't be a crook in Washington any more . . . what with the Kefauver hearings, radio and TV news coverage, the Senate investigations on TV, and all that. The glare of mass communications media focused there has almost flushed out all the crooks. So, if we have trouble making our democracy work, it will probably be at the local level—where school boards, city councils, and others meet quietly in smoke-filled rooms to do almost as they please without much public scrutiny.

Let's get the television cameras into those meetings and let the public become aware of the organisms of government on the local level. This is, I think, a most significant service educational television—and only educational television—can render at the roots of our democracy.

THE CRISIS IN THE ADULT MIND

The third educational crisis that confronts us — and which I feel educational television is uniquely qualified to handle — is the crisis in the mind of the adult.

We are living in a world that is constantly becoming more complex. We have to know so much more about so many things. It therefore becomes necessary that the process of education be continuous for all of us. We must constantly stretch our minds to meet the challenge of the future. Television has a responsibility for helping people to stretch their minds — because it is the medium which has caught the public attention unlike any device for communication ever developed.

We know that we are in the midst of a change in the communications pattern of our society which almost defies the imagination. If we fail to secure an intellectual beachhead in this vast invasion of the very ways in which we communicate, we may not survive the experiment. It has been well stated that we still need every possible tool of the 20th century to enable us to see the end of the 20th century.

Certainly educational television —or television either—is not going to make the difference between survival and extinction of our society. It is a tool, to be used by people . . . people like you, who

have a reservoir of trust and confidence by the public in your own media of communications, are vitally important to the understanding of this tool and to the conditioning of its orderly development.

We must meet and solve the burgeoning crises in formal education; we must overcome this devastating indifference to governmental functions; and we must struggle to stretch the minds of people.

You educators have been doing that for years. Here is a new tool, an important tool. Use it.

A Review

The National Program in the Use of Television in the Public Schools. A report on the National Workshop at Chapel Hill, North Carolina, June 15-26, 1959. The Fund for the Advancement of Education, September, 1959. 45 pages.

Some 150 teachers representing more than 200 school systems in 15 states assembled for this workshop, the first nationwide one on the use of TV in teaching large classes as part of the regular instructional program in U. S. schools. Besides the teachers, many principals, studio directors and producers, station managers, and other personnel attended part or all of the sessions.

As the workshop opened, the nationwide experiment in the use of TV in teaching large classes (ranging in size from 90 to 700 pupils) had just completed its second year. The primary purpose of the workshop was to take a good look at the progress of the experiment and to plan for the future.

Among the findings reported here on the national program were: The TV teacher can cover more ground than the conventional classroom teacher (because of the careful planning and absence of interruptions). Discipline has not been a problem in the large classes, with rare exceptions. Students learn early how to concentrate and take notes. TV students in many instances have used the school library more than conventional classroom students. The classroom teacher has assumed new importance—for she can either "make or break" the lesson. TV teaching should start early in the elementary grades so pupils become accustomed to it early. Many adults are tuning in on the televised lessons. More exploration is needed on how to fully utilize TV to make subjects such as history "come alive" for students. The telecast part of the lesson and the classroom follow-up need to be developed into a unified, meaningful whole. Regarding the problem of students not being able to ask questions during the telecast, it was felt that not only were studio teachers able to anticipate many student questions, but that many students liked the idea of having the teacher present a lesson without interruptions.

There was general agreement among the participants on the following points relating to what constitutes a high-quality telecast: The principal function of the telecast part of the lesson is to present, explain, and demonstrate the basic concepts of the lesson. Each lesson must have a clear objective. Continuity of lessons is important —achieved perhaps by a brief review of the preceding lesson and a short preview of the coming one. Visuals should be simple and not overdone. Resource people, used to perform part of the teaching task which the teacher cannot do as well alone, must stick to the point of the lesson. Studio teachers should avoid distracting dress and mannerisms. The telecast should leave the students with something to do and/or think about.

There was unanimous agreement that if the classroom teacher doesn't show interest during the telecast, she can hardly expect her students to do so. Suggestions were that she might take notes along with her students, observe student reactions, and quietly help to interest inattentive students.

Characteristics desirable in studio teachers were agreed upon by the workshop participants. One group observed that all its studio teachers were popular with their students and were successful classroom teachers. Most frequent characteristics named were thorough knowledge and enthusiasm about the subject; the ability to work with others, to take criticism, and to organize and present the lesson clearly; adaptability, good health and stamina, creativity and imagination, extra poise; excellent command of English; successful classroom teaching experience; and training in the use of visual aids.

As for assistance for studio teachers, those at the workshop felt it important that the teacher have a trained artist to help prepare visuals and an imaginative researcher to seek out such things as pictures and maps. Several groups stressed the need for a clearinghouse to locate and catalogue films and film strips—and to arrange clearance for their use on TV.

The consensus of opinion was that the classroom teacher should have five minutes before the telecast to prepare her students for it, that the program itself should last twenty to thirty minutes, and that the classroom teacher should have at least fifteen minutes afterward for follow-up.

Principal ways suggested to induce student participation under the large class system were: giving short quizzes on the telecast, using questions that will make the students *think* about the material; organizing the large class into several small seminars in which students discuss ideas presented in the telecast; and using a system whereby a student and his "buddy" help each other.

One of the special problems encountered in large classes was

student cheating. The group reporting this problem had met it by having vacant seats between students, and by using different arrangements of the questions on a given test.

The question was asked as to whether publishers are working on new texts to fit the new medium—"Can they put many important topics in pamphlet form rather than in bulky, unwieldy textbook form, for this new medium?"

There was general agreement among workshop participants that TV will have an effect on the teacher's role—in these directions:

1. Both studio teachers and classroom teachers will tend to become subject matter specialists as well as excellent teachers.

2. The use of aides and other nonprofessional help will give the teacher a greater opportunity to free herself from routine chores and to concentrate on teaching . . . thus making teaching "a true profession."

3. The team approach to teaching will change the role of the individual teacher.

4. "Because more responsibility for learning will be placed on the student, the teacher will cease being a professional spoon-feeder and will become an educator."

—Betty McKenzie

We Need More Production!

Author reports on visits to ETV stations across the nation

In early 1958, I began work on a project offering production consultation to each of the operating affiliates of the National Educational Television and Radio Center. Funds were supplied by the Fund for Adult Education. As director of this national project, I was granted a six-month leave of absence from Nebraska to coordinate the service—a service which made me a favorite customer of the nation's airlines. According to a secretary who kept pretty good track of me, as well as of the project, 35,963 air miles were consumed. Such travel enabled me to visit each ETV station (and production center feeding programing to an ETV station) at least once—many, several times. A number of these stations and production centers are actively engaged in in-school broadcasting.

THE PROJECT

The production consultation project actually was formulated at a 1957 meeting of the Center-affiliated stations. Realizing inadequacies and weaknesses in the entire production area, the assembled station managers unanimously petitioned the Center to request the Fund for Adult Education's approval to use certain monies for (1) advisory visits to each affiliate by qualified professionals in TV production areas of greatest need, and (2) the production of four training films in several specified production areas, prints of which would reside permanently at each station for recurring use by its staff.

Thus the project had as its immediate objective the improvement

By **Jack G. McBride**

Taken from a speech delivered to the conference on the National Program in the Use of Television in the Public Schools, New York City, January, 1959. Mr. McBride is 1st Vice President of the NAEB, and general manager of the University of Nebraska's KUON-TV. He was on leave of absence for six months in 1958 to serve as project director for the production consultation service he describes here. During the six months, he travelled over 36,000 miles, visiting all existing ETV stations and related production centers, and coordinating consultation service which brought to the ETV stations professional TV production personnel from New York and Hollywood.

of production at the local level—and, as its ultimate objective, the strengthening of the national movement. The Fund approved and the job began.

A project office was established at KUON-TV in Lincoln, Nebraska. After preliminary correspondence and conversations with the station managers, the project director spent several weeks in New York, Chicago, and Los Angeles interviewing potential consultants in both the broadcast networks and allied communications media. With a notebook full of names and backgrounds, the director then visited each ETV station and feeder studio. Major needs were assessed. Each consultant visit was then specifically designed for the greatest local benefit. This tailoring process, I am sure, accounts substantially for the success of the visits.

During the project, thirty-one different consultants of excellent stature were used. They spent a total of 231 days in ETV studios. In most cases, stations asked for and received two experts in different areas. Producers, directors, lighting directors, writers, graphics specialists, art directors, kinescope operators, staging and set-design specialists fanned out over the course of the spring and early summer to spend a maximum of ten days in each studio.

The consultation project was deemed most successful by all participants. The stations received detailed and concrete advice and

assistance. Network consultants had their eyes opened to an entire new life across the tracks. Incidentally, many consultants are still corresponding with stations. An NBC producer and a CBS lighting director have changed to ETV.

The second phase of the project was the production of four training films which would permanently record practical advice on the subjects of TV directing, lighting, and staging. This was to fill a void, inasmuch as TV training films are practically nonexistent. Accordingly, an associate producer-writer was hired, as were consultants in the three areas. Four films were produced and now reside with each Center affiliate: "Directing for Television" (Part 1 and Part 2), "Television Lighting," and "Staging for Television." I will say something more about these later. It is hoped that these films will be the first of a series of training films covering every aspect of TV operation.

That summarizes the NETRC consultation service.

STATE OF THE ETV UNION

What is the status of educational television across the country? Answer: a qualified "good."

Interest is increasingly awakening from many directions—and on the part of administrators, teachers, school boards, patrons, and students. As you know, TV is being used in education in a variety of manners by a variety of people. It has begun to assist in solving a variety of educational problems. It is a supplement to the teacher in a Pittsburgh classroom. It is freeing money for use elsewhere in the Miami school system. It provides classroom instruction from one Oregon state campus to another. It enables Oklahoma and Nebraska rural high school students to call Dr. White their physics teacher, and a Chicago homebound girl to receive junior college credit. It brings the Boston Symphony to Seattle, the Great Plains to Alabama, and a course in conversational Russian to a Salt Lake City housewife.

It already has many names and abbreviations—a sure sign of acceptance and permanence. It is addressed as educational television, televised education, in-school programing, and closed-circuit instruction. It can be programed as open channel, closed-circuit, open-closed circuit. It is evening and continuing adult education, a telecourse on a commercial station, and public service programing.

It is in many instances thriving, vibrant, meaningful, and dynamic. It is met with resistance and opposition by a few; complacency and indifference by some; intellectual curiosity and open-minded awareness by a great many; and enthusiasm, vision, dedication, and zeal by still others.

Educational broadcasting in its few brief years has developed with tremendous rapidity — doubly so, when you consider that the evolution has taken place within a traditionally slow-paced educational structure. A number of changes

are emerging from all this. Educational broadcasting has become one of our newest professions.

Right here I'd like to mention that ETV was given the chance to prove itself while radio was not. Thanks in large measure to financial support from several private foundations, television has been given the necessary impetus to insure a fair trial in our teachers' colleges and other educational institutions. How large a contribution these foundations have made as catalytic agents will be reported in proper perspective by future educational histories. I submit that the contribution will be recorded as immense.

FIELD OBSERVATIONS

● TEACHERS

In many instances we are not taking pains to obtain the services of the best possible teachers. We have, to some extent, succumbed to the expedient. Rather than continue the exhaustive search and solve the administrative problems inherent in bringing in an outsider, we have sometimes shifted to the TV studio a staff member more readily available. I am well aware of the problems involved—the leaves of absence, reluctant superiors, security, moving, etc.

And no ready solution was discovered during the year of the project. But it did become increasingly apparent that we do not in every case have the best possible teacher standing before that demanding image orthicon. We strive for superior instruction by television, yet we are guilty of taking the easy way out. We don't raise heaven and earth to insist firmly that the *best* teachers, all factors considered, do the TV teaching.

● PRODUCTION

In many instances we are not putting enough production into our ETV programs. This is true regardless of whether they are designed to supplement the class or the syllabus, or to provide total instruction. Too often we seat the teacher behind a desk, where she resides for the entire program. We eliminate movement. A good program demands movement for variety's sake.

In addition to p l u n k i n g our teacher behind her desk, we provide her with little assistance. In one case observed, the only concession to TV was an occasional still picture used to break the monotony of the teacher's delivery.

We simply need more production in these programs—and they *are* programs rather than classes.

I realize the drawbacks to this philosophy as far as the academicians are concerned. Their argument: gimmicks . . . watering down a lecture . . . sugar-coated instruction . . . not done in the classroom. My answer: This is not advocating gimmicks for gimmicks' sake. We are looking for production aids which will enhance and reinforce certain p o i n t s by illustration — which will present a visual image.

I began working with teachers in adapting their subject matter to

TV in 1950. During these past years it has become increasingly evident that our teachers have a woeful lack of training in audio-visual practices. They should be using these tools daily as aids to their classroom teaching.

We ask our students to sit and devote complete attention for twenty or thirty minutes to a little piece of glass twenty-one or so inches wide. And we know that the subject matter cannot be reviewed. As one student said, "Once it goes by, it's gone for good." Thus we had best make sure that what appears on that screen is worthy of their uninterrupted concentration—that it is sufficient to capture their complete attention. It must be imaginative, exciting, interesting, and vital.

My thesis is this: We cannot rely upon the novelty factor for long. Placing a TV set in a classroom provides an initial advantage for instruction. The idea of learning by watching something that provides entertainment at home is appealing and fun. But TV will lose this advantage rapidly; already we are beginning to experience this. As the novelty factor wears off, we will have to provide correspondingly better programs to retain interest and, thus, optimum learning. Today's students, in many cases, saw the first TV set moved into their homes. Tomorrow's students will have been reared with television: the set in the classroom will be as commonplace as the console in the living room or the portable in the playroom.

And the most important point here is that these children, consciously or unconsciously, are attuned to professional programs incorporating professional production techniques and presented by polished performers. They are being trained by the networks and Hollywood to demand and receive excellence of programing. Unless we continue to provide excellence of teaching on our classroom screens, we cannot escape the inevitable comparison — with resulting loss of interest and attention.

We need more variety in our in-school programs. I mentioned movement . . . we also need more variety in our visuals. Even good visuals tend to lose effectiveness when used repeatedly.

Why not change pace by introducing another means of presentation? Instead of relying on the blackboard to such an extent, why not make use of a flannel graph or magnet board? Results are the same, yes . . . but you have revived interest. Variety . . . in staging . . . in the teacher's delivery . . . in artwork . . . in every element of a television program. This is a key to more successful programing.

Our studio classes are often cluttered, monotonous, unimaginative, even amateurish—especially in our artwork and graphics. Our teachers are required to provide—in some cases *insist* on providing—their own artwork and graphics. Our teachers may be able to do a fine job with a blackboard, but we cannot ask them to be commercial

artists as well. Our viewers are accustomed to expert television artwork.

Our programs have shown the greatest improvement in the area of organization. They progress logically from an introduction through a presentation to a conclusion. The medium has forced our studio teachers to this systematic approach.

In stressing the elements of TV production so heavily, I'd like to say that these are concerns not only of studio people, operations and production staffs. All the problems mentioned have their answers in administration. The more professional approach takes time and people. We must be realistic. Good television programs cannot be produced by skimping. It takes time for an artist to prepare good visuals . . . time for a studio staging and lighting man to prepare the setting . . . time for the teacher to research her program . . . time to arrange for the loan of a museum piece . . . time for the historical dramatic vignette . . . time to coordinate the cartoons with special background music.

● STAFF AND EQUIPMENT

By and large, our ETV operations are badly understaffed and underequipped. In many cases we are forced to use untrained help in too many demanding and responsible positions. Too few staff members must wear far too many hats. As a result, in too many instances, inexperienced talent stands in front of an uninteresting and poorly lighted setting and, with no rehearsal or run-through, tries to present a program which is unimaginatively conceived and illogically structured.

An untrained production crew works with inadequate equipment. And the final product fed to our classrooms is judged, whether we like it or not, by students accustomed to professional production standards.

● TEACHER VS. PRODUCER

Unfortunately, there does exist the jurisdictional problem of content specialist versus studio producer. In certain situations, the hands of the studio staff are virtually tied. The teachers have assumed an unrealistic position regarding their role and that of the studio. In one instance, this situation is almost out of hand. The teacher decides not only her specialty—content—but also how the program is to be presented . . . staged . . . what lights to use, while the TV director — whose job it is to know these things — is stripped to the point of uselessness. If the teacher is also a TV specialist, fine—but this is rarely the case.

When asked about poor lighting on one in-school program, the director replied, "The teacher doesn't want good lighting. She's been told it's unflattering." In such cases, we are not relying on our production specialists—the staff members we are paying for this very knowledge. Instead, the TV teacher herself—with no background or training in television—has asked the opinion

of several of her associates (also not television-trained), and the result shows it.

In this same instance, I was told that teachers were warned before they first stepped into the studio to beware of production . . . "Those television people will try to water down your teaching, turn it into a side show." These teachers must face the fact that they cannot simply bring a dull and stuffy lecture intact from the classroom to the studio. The medium demands adaptation.

The teacher is the content specialist, yes — and as such should and must retain ultimate control of the program. But there should be a team approach with both the teacher and the producer-director joining together to present the best possible program. The production specialist can be of immense help if allowed. Television is too complex to try to stand before the cameras and behind them at the same time. Better quality will come only when studio personnel exert more influence over the TV productions. A happy medium needs to be struck.

RECOMMENDATIONS

- Exert every effort to obtain the best possible teachers.
- Insist that the medium and all its production aspects be used to the fullest. Insist on variety of movement, delivery, and presentation.
- Insist on optimum quality production and take the necessary steps to provide adequate staff, facilities, and operating budget.
- Where necessary, establish a proper balance of authority and responsibility between teaching and production staffs.
- Again, where applicable, reduce problems of rivalry and jealousy to healthy proportions.
- If prints of the NETRC training films are not presently available to you, investigate their purchase from the Center. The films, plus an accompanying production-tips handbook composed of materials used by the consultants, should offer welcome assistance.
- When filling production staff vacancies, consider the possibility of hiring professional production personnel from commercial television. They are available for less money than you might think; many are even eager to make the change. We have all too often made what I consider a mistake by insisting on an educational background rather than professional training for our station and studio personnel. This insistence may be good in the ETV ranks from producer up, but experience seems to be proving that the man with the professional background can do the better job in any production position. He can acquire necessary educational orientation quickly. The reverse does not hold true.

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